

### **REMARKS**

This paper responds to the Office Action mailed on April 5, 2006.

Claims 1, 12, and 16 are amended, no claims are canceled, and no claims are added; as a result, claims 1-19 are now pending in this application.

### **In the Specification**

The specification is amended to update priority information. No new matter is introduced.

### **Information Disclosure Statement**

Applicant submitted a Supplemental Information Disclosure Statement and a 1449 Form on May 24, 2004. Applicant respectfully requests that an initialed copy of the 1449 form be returned to Applicants' Representatives to indicate that the cited reference has been considered by the Examiner.

### **§103 Rejection of the Claims**

Claims 1, 4, 8 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dreyfus (U.S. 3,357,342) in view of Cahne (U.S. 3,008,601).

In order support the burden of proof required for an obviousness rejection, the Office Action cannot rely on non-analogous art, such as is the case here. The MPEP states the requirement of analogous or nonanalogous art as follows:

#### **2141.01(a) Analogous and Nonanalogous Art [R-3]**

#### **I. < TO RELY ON A REFERENCE UNDER 35 U.S.C. 103, IT MUST BE ANALOGOUS PRIOR ART**

The examiner must determine what is "analogous prior art" for the purpose of analyzing the obviousness of the subject matter at issue. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it

may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993); and *State Contracting & Eng'g Corp. v. Condotta America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed. Cir. 2003) (where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved).

In order to use prior art as a basis for an obviousness rejection, it must either be 1) in the field of the applicant's endeavor or 2) be reasonably pertinent to the particular problem with which the inventor was concerned. It is quite clear that the use of Dreyfus and the use of Cahne in this situation satisfies neither of these requirements.

First, Dreyfus is clearly not in the same field as the applicant's endeavor. Dreyfus describes an apparatus for cooking frozen vegetables. In contrast, claim 1 presently recites in part: "sheet of semiconductor die stencil material to align above a die..." A cooking apparatus is not semiconductor die stencil material, and the two do not share even remotely similar properties. Thus, Dreyfus is not analogous art because Dreyfus does not disclose subject matter that could be considered of the same field as the subject matter recited in claim 1.

Furthermore, Dreyfus does not disclose subject matter that is reasonably pertinent to the particular problem which the applicant was concerned when conceiving the subject matter recited in claim 1. Dreyfus discloses an apparatus that suspends a frozen block of vegetables above boiling water, plurality of uniform apertures to allow steam to penetrate the vegetables to defrost and cook them. In direct contrast, semiconductor die stencil recited in claim 1 was created to improve the accuracy of placement of adhesive material on a semiconductor die, and reduce the frequency of stencil cleaning.

Cahne is also clearly not analogous art. Cahne is clearly not in the same field as the applicant's endeavor. Cahne describes the application of a coating to a cooking utensil so food doesn't stick to the cooking utensil. In contrast, claim 1 presently recites in part: "a sheet of semiconductor die stencil material to align above a die..." A cooking utensil is not stencil for application of an adhesive to a semiconductor die, and the two do not share even remotely similar properties. Thus, Cahne is not analogous art because Cahne does not disclose subject matter that could be considered of the same field as the subject matter recited in claim 1.

Furthermore, Cahne does not disclose subject matter that is reasonably pertinent to the

particular problem which the applicant was concerned when conceiving the subject matter recited in claim 1. One reasonably skilled in the semiconductor die stencil would not look to the cooking utensil art to improve his process. In direct contrast, semiconductor die stencil recited in claim 1 was created to improve the accuracy of placement of adhesive material on a semiconductor die, and reduce the frequency of stencil cleaning.

Applicant respectfully requests clarification of the Office Actions use of Dreyfus and Cahne as a basis for an obviousness rejection. Applicant respects clarification of how Dreyfus and Cahne are considered analogous art such that it qualifies as applicable prior art.

Furthermore, the references cited in support of the rejection of claim 1 does not disclose each and every element recited in claim 1. Claim 1 presently recites in part: "a sheet of semiconductor die stencil material to align above the semiconductor die, the sheet having a top surface and a bottom surface to face the semiconductor die...and a coating applied only to the bottom surface of the sheet." Instead of a sheet of material, Cahne describes a cooking utensil. Instead of a coating applied to the bottom of a sheet, Cahne describes coating applied to the top, not the bottom, of an apparatus. The Office Action admits that Dreyfus does not disclose any coating as recited in claim 1. The references do not teach or suggest a coating applied to the a bottom surface, as recited in claim 1 because neither reference teaches or suggests a coating applied to a bottom surface.

Furthermore, claim 1 recites "a coating applied ... to retard spreading of the printable adhesive onto the bottom surface of the sheet without obstruction of the flow of printable adhesive through the apertures onto the die." In contrast, neither Cahne nor Dreyfus include any disclosure of a coating that retards the spread of adhesive. Furthermore, neither reference discloses a coating that does not obstruct the flow of printable adhesive through the apertures onto the die. There is no support presented by the Office Action that adhesive spreading is retarded by either Cahne nor Dreyfus. There is nothing presented by the Office Action in support of non-obstruction of the flow of printable materials. The references do not teach or suggest a coating that retards spreading of printable materials or that does not obstruct the flow of printable adhesive through the apertures onto the die. In support of the obviousness rejection, the Office Action states:

"The recitation of the intended end use of the claimed apparatus/device to be aligned above a die such that the bottom surface of the claimed apparatus/device faces the die and the apertures of the claimed invention define a desired pattern of application of a printable adhesive does not structurally further limit the claimed device/apparatus over the above recited combination of references since Dreyfus in view of Cahne teaches each of the structural elements of the claimed apparatus/device."

Applicant respectfully disagrees. Claim 1 recites in part: "a plurality of apertures in the sheet of material defining a desired pattern for application of a printable adhesive." Contrary to the Office Action's assertion, this plurality of apertures that define a pattern is a structural element, not a method of use, because the plurality of apertures in Cahne are uniform apertures incapable of defining a pattern as complex as is needed to apply an adhesive material to a semiconductor die. Thus, Cahne does not disclose the structural limitation of a sheet of material defining a desired pattern for application of a printable adhesive.

In support of its position, the Office Action cites Ex parte Masham (hereinafter Masham). 2USPQ 2d 1647. "Note it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations." Applicant respectfully disagrees that Masham is applicable to the subject matter recited in claim 1. In Masham, the Board of Patent Appeals and Interferences held that a mixing apparatus claim was obvious over the prior art because the only difference over the prior art is that the mixing means employed was only partially submerged, while the disputed claim fully submerged the mixing means. Clearly in Masham the difference over the prior art was only a limitation on the manner in which the claimed apparatus is intended to be employed, it simply provided for an obvious adjustment, lowering the mixing means. In contrast, the subject matter recited in claim 1 is not an analogous limitation. First, unlike Masham where the prior art device was entirely capable of being employed in the recited manner by simply lowering the mixing apparatus, as previously discussed the apertures of Dreyfus are incapable of providing the pattern required to apply adhesive to a semiconductor die. Second, unlike Masham where the manner of use was the only difference over the prior art, Cahne doesn't teach application of a coating to a sheet of material, Cahne discloses application of a coating to a cooking utensil. Third, neither reference discloses

application of a coating to the bottom of the apparatus. Masham is clearly not applicable to the current subject matter, because not only do structural differences exist between the cited references and the claimed subject matter, many structural differences exist.

Also in support of its position, the Office Action cites *Hewlett-Packard Co. v. Bausch & Lomb Inc.* Applicant respectfully disagrees with the Office Action's interpretation of *Hewlett-Packard* (hereinafter HP). In HP, the court determined whether one device claim was invalid because it was obvious over another device claim. Two patents are at issue in HP, that both dealt with X-Y plotters used to create a two dimensional plot such as a chart or graph. Yeiser, which existed before the LaBarre patent, uses a knurled roller to pull paper along while the device prints a plot. The only difference between the LaBarre and Yeiser patents is that LaBarre uses a gritted roller to pull paper along while the device prints a plot.

The assignee of the Yeiser patent argued that although there are functional differences between the knurled roller and the gritted roller, the fact they have the same operational function should be enough to render the LaBarre patent obvious in comparison to the Yeiser device simply because both pull paper along in order to print a plot on the paper. The court found against this argument, stating that "there is no requirement... that HP show "operational differences" of the claimed device over the prior art. Claim 1 of LaBarre is an apparatus claim, and apparatus claims cover what a device is, not what a device does."

HP is clearly not applicable to the current subject matter. First, HP stands for the proposition that a lack of operational differences cannot provide a basis for an obviousness rejection. If anything, HP supports Applicant's assertion that the claimed subject matter is not obvious compared with the cited references. The functional difference between the knurled roller and the gritted roller in dispute in HP is very slight in comparison to the difference between Cahne and Dreyfus and the subject matter recited in claim 1. Cahne discloses uniform apertures, while claim 1 recites a plurality of apertures defining a desired pattern for application of a printable adhesive. Dreyfus discloses application of a coating to the top of a cooking utensil, while claim 1 recites application of a coating to the bottom of a sheet. Unlike the rollers of HP, claim 1 recites distinct structural differences over the cited references.

For at least the reasons stated above, Applicant respectfully requests removal of the rejection of claim 1. Claims 4, 8, and 12 all incorporate all the elements recited in claim 1. Claim

1 is believed allowable. As a result, Applicant respectfully requests removal of the rejection of claims 1, 4, 8, and 12.

Claims 2-3 and 9-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dreyfus in view of Cahne and Johnson (U.S. 4,677,905). Applicant respectfully traverses.

First, as previously discussed with respect to claims 1, 4, 8, and 12, Cahne and Dreyfus are non-analogous art that qualifies as prior art for purposes of an obviousness rejection. The same assertion applies to Johnson, because just as Cahne is non-analogous art because Cahne discloses an apparatus for improved cooking of frozen vegetables not a semiconductor die stencil, Johnson also discloses an apparatus for improved cooking of frozen vegetables.

Second, Claims 2-3 and 9-10 incorporate all limitations included in claim 1. Claim 1 is believed allowable. As a result, Applicant respectfully requests withdrawal of the rejection of claims 2-3 and 9-10.

Claims 2-3 and 9-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Dreyfus in view of Cahne and Chen (U.S. 5,199,347). Applicant respectfully traverses.

First, as previously discussed with respect to claims 1, 4, 8, and 12, Cahne and Dreyfus are non-analogous art that qualifies as prior art for purposes of an obviousness rejection. The same assertion applies to Cheng, because just as Dreyfus is non-analogous art because Dreyfus discloses a cooking utensil instead of a semiconductor die stencil, Cheng also discloses an a cooking utensil.

Second, Claims 2-3 and 9-10 incorporate all limitations included in claim 1. Claim 1 is believed allowable. As a result, Applicant respectfully requests withdrawal of the rejection of claims 2-3 and 9-10.

#### Double Patenting Rejection

Claims 1-4 and 8-11 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-13, 43 and 46-49 of co-pending Application No. 10/630,544. Claims 1-4 and 8-11 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of U.S. Patent No. 6,607,599 or claims 1-15 of U.S. Patent No. 6,599,365. Claims 1-4 and 8-11 were rejected under the judicially created doctrine of obviousness-type double patenting as being

unpatentable over claims 1-77 of U.S. Patent No. 6,669,781 or claims 1-24 of U.S. Patent No. 6,641,669. Applicant does not admit that claims are obvious in view of any of the above. Applicant will consider filing a Terminal Disclaimer when the claims are otherwise in condition for allowance and when the rejection in view of the application is no longer provisional.

### CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

TONGBI JIANG ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.  
P.O. Box 2938  
Minneapolis, MN 55402  
(612) 349-9587

Date

5 July '06

By

Timothy B. Elise  
Reg. No. 40,957

**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 5 day of July, 2006.

Name

KATE GAWSON

Signature

Kate G